Wichern, C.M., 278

Xie, X.S., 390

Yan, W., 321
Yang, H., 396
Yilmaz, M., 138

Zeren, M., 138
Zhang, H., 123
Zhao, T.C., 390

ELSEVIER

Journal of Materials Processing Technology 160 (2005) 412–417

Journal of Materials Processing Technology

www.elsevier.com/locate/jmatprotec

Subject Index of Volume 160

AA-6101
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
AAAC conductor
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
AlB_{12}
Inoculation of transition elements by addition of AlB_2 and AlB_{12} to decrease detrimental effect on the conductivity of 99.6% aluminium in CCL for manufacturing of conductor, 174
AlB_2
Inoculation of transition elements by addition of AlB_2 and AlB_{12} to decrease detrimental effect on the conductivity of 99.6% aluminium in CCL for manufacturing of conductor, 174
AlMgSi
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
Al–25Si–X composite
Extrusion of spray-formed Al–25Si–X composites and their evaluation, 354
Alumina
Ceramic injection moulding: influence of specimen dimensions and temperature on solvent debinding kinetics, 213
Analysis of variance (ANOVA)
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160
Anionic dyeing
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
Antenna
The manufacture of microwave plate reflector antennas by employing the improved superplasticity hydraulic forming method, 107
Austenitic stainless steel
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
AWJ cutting
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188

Bar rolling
Modelling of dynamic and metadynamic recrystallisation during bar rolling of a medium carbon spring steel, 267
Bending
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Binder removal
Ceramic injection moulding: influence of specimen dimensions and temperature on solvent debinding kinetics, 213
Broaching
An example of selection of the cutting conditions in broaching of heat-resistant alloys based on cutting forces, surface roughness and tool wear, 382
Bulge forming
On the thinning variation of a superplastically formed titanium alloy spherical domes, 370

Carbon fiber-reinforced plastics (CFRPs)
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160
Carburizing
Dry sliding wear in case-hardened niobium microalloyed steels, 401
Cationic dyeing
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
Cellulase enzyme
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
Cemented carbides
Modelling of metal-binder migration during liquid-phase sintering of graded cemented carbides, 361
Ceramic injection moulding
Ceramic injection moulding: influence of specimen dimensions and temperature on solvent debinding kinetics, 213
Ceramics
A note on the peculiarities of producing of high-temperature superconducting polymer–ceramic composites, 306
Closed-die forging
A quasi-3D method used for increasing the material yield in closed-die forging of a front axle beam, 119
Cold drawing
Effects of degrees of deformation and stress-relief temperatures on the mechanical properties and residual stresses of cold drawn mild steel rods, 112
Cold forging properties
The effect of nitrogen on the cold forging properties of 1020 steel, 335
Composite
Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics, 90
Magnetic and dynamic mechanical properties of barium ferrite–natural rubber composites, 229
A note on the peculiarities of producing of high-temperature superconducting polymer–ceramic composites, 306
Compression test
Analytical and experimental study of frictional behavior in through-thickness compression test, 148
Computational modeling
Experimental and theoretical analysis of particle distribution in particulate metal matrix composites, 289
Constitutive laws
Modelling of dynamic and metadynamic recrystallisation during bar rolling of a medium carbon spring steel, 267

Elsevier B.V.
doi:10.1016/S0924-0136(05)00253-0

Contact area
An experimental investigation on the deformation behavior during wire flat rolling process, 313
Continuous casting line (CCL)
Inoculation of transition elements by addition of AlB_2 and AlB_{12} to decrease detrimental effect on the conductivity of 99.6% aluminium in CCL for manufacturing of conductor, 174
Controlled rolling and cooling
Effect of controlled rolling and cooling on the microstructure and mechanical properties of 60Si2MnA spring steel rod, 390
Cooling curve
Influence of SiC and FeSi addition on the characteristics of gray cast iron melts poured at different temperatures, 183
Cotton fabrics
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
Cross wedge rolling
On the critical interfacial friction of a two-roll CWR process, 245
Crushed shape
Tube size effect on hydroforming formability, 24
Cutting conditions
An example of selection of the cutting conditions in broaching of heat-resistant alloys based on cutting forces, surface roughness and tool wear, 382

Deposition efficiency
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Diboride
Inoculation of transition elements by addition of AlB_2 and AlB_{12} to decrease detrimental effect on the conductivity of 99.6% aluminium in CCL for manufacturing of conductor, 174
Dimension accuracy
Evaluation for micro scale structures fabricated using epoxy-aluminum particle composite and its application, 168
Dimensional precision
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160
Dissimilar metal welding
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Ductile fracture
A fracture criterion of aluminum alloys in hot metal forming, 257
Dynamic mechanical properties
Magnetic and dynamic mechanical properties of barium ferrite–natural rubber composites, 229
Dynamic recrystallisation
Modelling of dynamic and metadynamic recrystallisation during bar rolling of a medium carbon spring steel, 267
Dynamic recrystallization
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Dynamic strain aging
The effect of nitrogen on the cold forging properties of 1020 steel, 335

Easy care finish
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
EDG
Micro-machining of cylindrical parts by electrical discharge grinding, 15
Edge geometry
High tolerance plasma arc cutting of commercially pure titanium, 77
EDM
The use of grey-fuzzy logic for the optimization of the manufacturing process, 9
Electrical discharge machining
Micro-machining of cylindrical parts by electrical discharge grinding, 15
Electrochemical machining (ECM)
Controlling of metal removal thickness in ECM process, 348
Electrolyte
Controlling of metal removal thickness in ECM process, 348
Electron beam textured sheet
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Epoxy-aluminum particle composite
Evaluation for micro scale structures fabricated using epoxy-aluminum particle composite and its application, 168
Extrusion feedstock
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
Extrusion ratio
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138

FE-analysis
A quasi-3D method used for increasing the material yield in closed-die forging of a front axle beam, 119
Feeding
Tube size effect on hydroforming formability, 24
FEM
On the critical interfacial friction of a two-roll CWR process, 245
Ferritic stainless steel
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Fibre length
Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics, 90
Finite element method
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Finite element modeling
Temperature changes and loads during hot-die forging of a gamma titanium–aluminide alloy, 321
Forming load
FEM numerical simulation of tube axial drawing process, 396
Fouriers differential equation
Numerical simulation of steel ingot solidification process, 156
Fracture
Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics, 90
Friction welding
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Friction-hill analysis
Analytical and experimental study of frictional behavior in through-thickness compression test, 148
Front axle beam
A quasi-3D method used for increasing the material yield in closed-die forging of a front axle beam, 119
Functionally graded materials
Modelling of metal-binder migration during liquid-phase sintering of graded cemented carbides, 361
Fuzzy logic
The use of grey-fuzzy logic for the optimization of the manufacturing process, 9

Gamma titanium–aluminide
Temperature changes and loads during hot-die forging of a gamma titanium–aluminide alloy, 321

Genetic algorithm
Comparison between genetic algorithms and response surface methodology in GMAW welding optimization, 70
GMAW
Comparison between genetic algorithms and response surface methodology in GMAW welding optimization, 70
Grain growth
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Graphite
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
Gray iron
Influence of SiC and FeSi addition on the characteristics of gray cast iron melts poured at different temperatures, 183
Grey relational
The use of grey-fuzzy logic for the optimization of the manufacturing process, 9

Hardness
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Evaluation for micro scale structures fabricated using epoxy-aluminum particle composite and its application, 168
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
Heat-resistant alloys
An example of selection of the cutting conditions in broaching of heat-resistant alloys based on cutting forces, surface roughness and tool wear, 382
High elastic modulus
Extrusion of spray-formed Al–25Si–X composites and their evaluation, 354
High strength
Extrusion of spray-formed Al–25Si–X composites and their evaluation, 354
High wear resistance
Extrusion of spray-formed Al–25Si–X composites and their evaluation, 354
Hole finishing
Controlling of metal removal thickness in ECM process, 348
Homogenised–unhomogenised billets
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
Hot metal forming
A fracture criterion of aluminum alloys in hot metal forming, 257
Hot rolling
On the conditions for achieving ultra-fine grains via thermo-mechanical treatment, 123
HTPAC
High tolerance plasma arc cutting of commercially pure titanium, 77

Impact toughness
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Indentation
Characterisation of semi-solid material mechanical behaviour by indentation test, 43
Induction heating
Microstructural evolution and mechanical properties of low alloy steel tempered by induction heating, 54
Ingot solidification
Numerical simulation of steel ingot solidification process, 156
Inoculation
Inoculation of transition elements by addition of AlB_2 and AlB_{12} to decrease detrimental effect on the conductivity of 99.6% aluminium in CCL for manufacturing of conductor, 174
Interfacial friction
On the critical interfacial friction of a two-roll CWR process, 245

Laser
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
Laser materials processing
The effect of nozzle design on laser micro-machining of M2 tool steels, 198
Lateral spread
An experimental investigation on the deformation behavior during wire flat rolling process, 313
Liquid-phase sintering
Modelling of metal-binder migration during liquid-phase sintering of graded cemented carbides, 361
Loading path
Tube size effect on hydroforming formability, 24
Low alloyed steels
Microstructural evolution and mechanical properties of low alloy steel tempered by induction heating, 54

Machined material
Residual stresses in turning, 221
Material yield
A quasi-3D method used for increasing the material yield in closed-die forging of a front axle beam, 119
Materials processing
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188
Maximum depth of cut
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188
Mean grain size
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Mechanical properties
Effect of controlled rolling and cooling on the microstructure and mechanical properties of 60Si2MnA spring steel rod, 390
Mechanical properties and residual stresses
Effects of degrees of deformation and stress-relief temperatures on the mechanical properties and residual stresses of cold drawn mild steel rods, 112
Mechanics of erosion
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188
Medium carbon steel
Modelling of dynamic and metadynamic recrystallisation during bar rolling of a medium carbon spring steel, 267
Metal matrix composites
Experimental and theoretical analysis of particle distribution in particulate metal matrix composites, 289
Mg_2Si
Investigation of extrusion ratio effect on mechanical behaviour of extruded alloy AA-6101 from the billets homogenised-rapid quenched and as-cast conditions, 138
Microallyed steel
Dry sliding wear in case-hardened niobium microalloyed steels, 401
Micro electro mechanical systems (MEMS)
The effect of nozzle design on laser micro-machining of M2 tool steels, 198

Microgear
Evaluation for micro scale structures fabricated using epoxy-aluminum particle composite and its application, 168
Microhardness
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Micro-machining
Micro-machining of cylindrical parts by electrical discharge grinding, 15
The effect of nozzle design on laser micro-machining of M2 tool steels, 198
Microstructural evolution
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Microstructure
Characterisation of semi-solid material mechanical behaviour by indentation test, 43
High tolerance plasma arc cutting of commercially pure titanium, 77
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Microstructures
Effect of controlled rolling and cooling on the microstructure and mechanical properties of 60Si2MnA spring steel rod, 390
Microwave plate reflector
The manufacture of microwave plate reflector antennas by employing the improved superplasticity hydraulic forming method, 107
Milling
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160
Multiphase flow
Drag and non-drag force influences in numerical simulations of metallurgical ladles, 296
Multiple responses
The use of grey-fuzzy logic for the optimization of the manufacturing process, 9

Nitrogen in steel
The effect of nitrogen on the cold forging properties of 1020 steel, 335
Non-drag forces
Drag and non-drag force influences in numerical simulations of metallurgical ladles, 296
Non-isothermal forging
Temperature changes and loads during hot-die forging of a gamma titanium–aluminide alloy, 321
Notch tensile strength
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Nozzle oscillation
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188
Numerical model
Numerical simulation of steel ingot solidification process, 156
Numerical modelling
Modelling of metal-binder migration during liquid-phase sintering of graded cemented carbides, 361
Numerical simulation
FEM numerical simulation of tube axial drawing process, 396

Optimization
Comparison between genetic algorithms and response surface methodology in GMAW welding optimization, 70
Orthogonal arrays
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160

Particle distribution
Experimental and theoretical analysis of particle distribution in particulate metal matrix composites, 289
Pitting corrosion
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Plasma cutting
High tolerance plasma arc cutting of commercially pure titanium, 77
Plasma spray
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Plastic anisotropy
Analytical and experimental study of frictional behavior in through-thickness compression test, 148
Polymer
A note on the peculiarities of producing of high-temperature superconducting polymer–ceramic composites, 306
Polymer-bonded magnets
Magnetic and dynamic mechanical properties of barium ferrite–natural rubber composites, 229
Porosity
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Ceramic injection moulding: influence of specimen dimensions and temperature on solvent debinding kinetics, 213
Pouring temperature
Influence of SiC and FeSi addition on the characteristics of gray cast iron melts poured at different temperatures, 183
Pre-pressure
Tube size effect on hydroforming formability, 24
Pressing
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Pressure casting
Experimental and theoretical analysis of particle distribution in particulate metal matrix composites, 289
Process parameters
Residual stresses in turning, 221

Quasi-3D
A quasi-3D method used for increasing the material yield in closed-die forging of a front axle beam, 119
Quenching and tempering
Microstructural evolution and mechanical properties of low alloy steel tempered by induction heating, 54

Reheating process
Thixo diecasting process for fabrication of thin-type component with wrought aluminum alloys and its formability limitation, 59
Residual stress
Residual stresses in turning, 221
Residual stresses
Dissimilar metal friction welding of austenitic–ferritic stainless steels, 128
Response surface methodology
Comparison between genetic algorithms and response surface methodology in GMAW welding optimization, 70
Rigid-plastic FEM
FEM numerical simulation of tube axial drawing process, 396
Roll speed
An experimental investigation on the deformation behavior during wire flat rolling process, 313
Rolling force
An experimental investigation on the deformation behavior during wire flat rolling process, 313

Rolling models
Modelling of dynamic and metadynamic recrystallisation during bar rolling of a medium carbon spring steel, 267

Semi-solid material
Characterisation of semi-solid material mechanical behaviour by indentation test, 43
Shape prediction
Controlling of metal removal thickness in ECM process, 348
Silicon carbide
Influence of SiC and FeSi addition on the characteristics of gray cast iron melts poured at different temperatures, 183
Silicon carriers
Influence of SiC and FeSi addition on the characteristics of gray cast iron melts poured at different temperatures, 183
60Si2MnA spring steel
Effect of controlled rolling and cooling on the microstructure and mechanical properties of 60Si2MnA spring steel rod, 390
Sliding
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Sliding wear
Sliding wear behaviour of zinc–cobalt alloy electrodeposits, 234
Soft finish
Effect of cellulase treatment on the extent of post-finishing and dyeing of cotton fabrics, 99
Spherical domes
On the thinning variation of a superplastically formed titanium alloy spherical domes, 370
Spheroidization
Microstructural evolution and mechanical properties of low alloy steel tempered by induction heating, 54
Spray-forming & extrusion
Extrusion of spray-formed Al–25Si–X composites and their evaluation, 354
Static recrystallization
Prediction of microstructural evolution and recrystallization behaviors of a hot working die steel by FEM, 1
Statistical experiment
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Statistics
Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics, 90
Steel strips
On the conditions for achieving ultra-fine grains via thermo-mechanical treatment, 123
Stepwise regression
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34
Stirred ladle
Drag and non-drag force influences in numerical simulations of metallurgical ladles, 296
Strain rate
Characterisation of semi-solid material mechanical behaviour by indentation test, 43
Strain without die contact
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Stress-relief
Effects of degrees of deformation and stress-relief temperatures on the mechanical properties and residual stresses of cold drawn mild steel rods, 112
Sub-zero treatment
Dry sliding wear in case-hardened niobium microalloyed steels, 401
Superconductivity
A note on the peculiarities of producing of high-temperature superconducting polymer–ceramic composites, 306
Superplastic deformation
On the thinning variation of a superplastically formed titanium alloy spherical domes, 370
Superplasticity hydraulic forming
The manufacture of microwave plate reflector antennas by employing the improved superplasticity hydraulic forming method, 107
Supersonic nozzle design
The effect of nozzle design on laser micro-machining of M2 tool steels, 198
Surface alloying
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
Surface integrity
Controlling of metal removal thickness in ECM process, 348
Surface roughness
Maximum depth of cut and mechanics of erosion in AWJ oscillation cutting of ductile materials, 188
Surface roughness of a hot-dipped galvanized sheet steel as a function of deformation mode, 278
Surface treatment
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374

Taguchi's method
Damage and dimensional precision on milling carbon fiber-reinforced plastics using design experiments, 160
Thermal conductivity
Evaluation for micro scale structures fabricated using epoxy-aluminum particle composite and its application, 168
Thermoplastic
Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics, 90
Thin wall part
Thixo diecasting process for fabrication of thin-type component with wrought aluminum alloys and its formability limitation, 59
Thinning
Tube size effect on hydroforming formability, 24
Thixo diecasting process
Thixo diecasting process for fabrication of thin-type component with wrought aluminum alloys and its formability limitation, 59
Titanium
High tolerance plasma arc cutting of commercially pure titanium, 77
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
Tool life
An example of selection of the cutting conditions in broaching of heat-resistant alloys based on cutting forces, surface roughness and tool wear, 382
Tool steels
The effect of nozzle design on laser micro-machining of M2 tool steels, 198
Tube axial drawing
FEM numerical simulation of tube axial drawing process, 396
Tube size
Tube size effect on hydroforming formability, 24

Ultra-fine grains
On the conditions for achieving ultra-fine grains via thermo-mechanical treatment, 123
Undercooling
On the conditions for achieving ultra-fine grains via thermo-mechanical treatment, 123

Uniform design of experiments
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34

Wear
Dry sliding wear in case-hardened niobium microalloyed steels, 401
Wear
Structure and hardness of titanium surfaces carburized by pulsed laser melting with graphite addition, 374
WEDG
Micro-machining of cylindrical parts by electrical discharge grinding, 15
Wire flat rolling
An experimental investigation on the deformation behavior during wire flat rolling process, 313
Work hardening
Analytical and experimental study of frictional behavior in through-thickness compression test, 148
Wrought alloy
Thixo diecasting process for fabrication of thin-type component with wrought aluminum alloys and its formability limitation, 59

Yttria stabilized zirconia coating
Optimizing the plasma spray process parameters of yttria stabilized zirconia coatings using a uniform design of experiments, 34

Zener–Holloman parameter
A fracture criterion of aluminum alloys in hot metal forming, 257
Zinc–cobalt alloy electrodeposits
Sliding wear behaviour of zinc–cobalt alloy electrodeposits, 234